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AMERICAN SYRPHID FLIES OF THE SUBFAMILIES CHEILOSINAE AND SYRPHINAE.

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Trichopsomyia urania n. sp.

A small, brassy black species with two large pale yellow spots upon the third abdominal segment. Perhaps related to *Currani* Fluke. Length 6.5 mm. excluding antennae; antennae 1 mm.

Male. Head: face and front and cheeks polished shining black. The front has a large opaque black triangle on the convex upper The eye margins along the face are narrowly silvery white pubescent, and are almost confluent with a similar, scarcely wider, linear spot of such pubescence upon the ocular margin of the lower part of the front. The long fine pile in the middle of the face is white becoming black laterally; the frontal pile is long, and fine and abundant and entirely black except for a few white hairs in the center. The vertex is black and slightly brassy with black pile. The ocular pile is very dense, longer above and dark brown appearing black in some lights. There is a distinct, complete, horizontal, bare stripe running across the middle of the eye and a similar, wider bare stripe as wide as the vertical triangle, running from the vertical triangle along the posterior occiput downward and narrowing until it reaches the posterior limit of the horizontal stripe. The antennae are elongate; the first segment is reddish brown, the second reddish brown below and blackish above; and these two segments are of equal length. The third segment is blackish throughout or perhaps faintly dark brown at the base below. Viewed along its medial surface it is a little longer than the first and second segments together. Thorax: the mesonotum and scutellum are brassy black without evident vitta; the pile is rather long, especially upon the scutellum, abundant and

light yellow. The pleura and humeri are brassy black and the pleural pile is vellow except upon the pteropleura where it is blackish. Squamae brown with dark brown border and fringe. Halteres orange with a brownish knob. Legs: the femora are black and faintly brassy with the apices of the anterior and middle femora narrowly yellowish brown and the extreme apex of the hind pair obscurely dark brown. The anterior tibiae are very dark brown, the basal third diffusely brownish yellow. dle tibiae are similar, the apex and basal half yellowish. Hind tibiae entirely dark, almost black, but perhaps actually very dark reddish sepia; their pile is entirely brownish black. The pile of the hind femora is brownish black except dorsally along the basal two-thirds and more narrowly basally where it is reddish brown and in places yellow. The first two segments of the anterior and middle tarsi are yellow, the remaining segments black. The apical third of posterior basitarsi, the second segment and the basal half of the third segment yellow with yellow pile, the remaining segments black with black pile. Wings: dilutely tinged with brown in the middle and still more faintly over the remainder of the wing where the brown tinge may be due to the thick villi. Stigmal area yellow. Abdomen: the first segment is brassy black. The second segment is black but only obscurely shining; it is rather greenish brassy across the middle, but subopaque posteriorly and basally. The pile is thick and brassy vellow except upon the posterior margin where it becomes dark and appears blackish. The pile on either side of the center of the segment is more or less appressed and directed laterally and towards the middle posteriorly. The third segment is obscurely shining brassy black, with a pair of very large, nearly quadrate, pale yellow spots which are slightly wider than long and separated in the middle by a distance fully equal to half their length; the anterobasal corners of these spots are rounded and truncate; the spots do not reach the lateral margins. of this segment is vellow except upon the posterior margin. Fourth segment entirely shining brassy black, in shape subtriangular; the pile is abundant, short, erect and brassy yellow.

Holotype: male, Pucallpa, Peru, Dec. 9, 1947, Jose Schunke.

Rhysops funerea n. sp.

An entirely black species with strong brassy reflections upon the thorax and the lateral margin of the abdomen. Wings heavily tinged with brown. Distinguished by these characters from *nigrans* Fluke. Length 9 mm.

Male. Head: face and front black and somewhat brassy, the sides of the face are very thinly yellowish grey pollinose; the pollen becomes thicker and more distinct narrowly along the eye margins. The facial pollen is not punctate and the sides of the face opposite the tubercle have one long and two or three microscopic, striate creases. Facial tubercle with one distinct crease above and faint traces of a second still more shallow crease. The pile of the face and front is black; the entire eye margins of the front are widely but obscurely dark yellowish grey pollinose. The middle of the front is biconvex with shallow, narrow, medial crease between. In front of these convexities lie a pair of shallow punctate depressions. The first segment of the antennae and the second are dark reddish brown, a little paler ventrally; the third is blackish above, reddish below. The first segment is distinctly shorter than the second and third combined; the first segment based on the dorsal length, is a little longer than the second but not quite as long as the dorsal length of the third segment. Arista missing. Thorax: mesonoum, scutellum and pleura black with strong brassy reflections; the mesonotal pile is light brownish vellow. The scutellar pile is longer and vellow with four or five long, slender, black, marginal hairs; ventral fringe quite long and yellowish. The squamae are pale brownish white with the margin and fringe brownish. Legs: black, the extreme apex of anterior and middle femora and the still more narrow base of their tibiae vellowish brown. All of the tarsi and the whole of the hind femora and tibiae are black. The pile of the legs is blackish; the mat of the hind tarsi however is brownish yellow, at least laterally. Wings: slightly longer than the abdomen and heavily tinged with brown which is darker in the middle and in the costal and marginal and submarginal cell and is still darker upon all of the cross veins and upon the stigmal portion of the subcostal cell. The third vein is quite straight. Abdomen: with parallel sides, dull black in color and only feebly shining down the middle but rather strongly metallic along the lateral margins.

Holotype: male, Nova Teutonia, Brazil, collected by Fritz Plaumann, Jan-March 1948.

This species is related to *nigrans* Fluke but in that species the male is described as having obscure yellowish spots which while more indistinct than in the female are present at least and can be discerned. In *nigrans* also the basal one-third of the tibiae are described as reddish yellow and the wings are only tinged with brown instead of being deeply brownish as in *funcrea*.

Allograpta harlequina n. sp.

A vittate species. Not close to described species. Length 8.5 mm.

Male. Head: cheeks brownish black; the face is pale yellow but very widely and sharply black in the middle over the tubercle; the black slightly decreases to the epistoma and expands above the tubercle. The face is concave in the middle with secondary tubercle above, beneath the antennae. The black of the face encircles the lower part of the front leaving the remainder of the front sharply whitish yellow with similarly colored pile. The first and second segments of the antennae are black; third missing. Eyes bare. The vertex is metallic black without pollen except upon the occiput; occipital pile pale yellow. Thorax: mesonotum metallic black with brassy reflections sublaterally and distinctly trivittate; the vittae are shining grevish green with brownish to grevish pollen. Humeri, notopleura and the area between sharply yellowish white. Postcalli pale vellow except anteriorly and posteriorly. The scutellum is pale yellow with a complete, rather wide, but diffuse dark brown preapical band; the declivitious base is also narrowly The mesonotal and pleural pile is light yellow; all scutellar pile vellow. Pleura metallic black with well defined vellow area upon the posterior half of the mesopleura and all of the metapleura except its narrow posterior border. Squamae vellow. Legs: femora pale vellow, the hind pair becoming diffusely brown near the middle on the upper side and at the outer third below. The anterior and middle tibiae are wholly pale yellow; the hind tibiae are brown, a little paler at the base. All of the tarsi are dark brown. Wings: hyaline; the stigmal area is yellow but the basal half of the subcostal cell is rather darker vellow brown. Whole costal cell quite clear. Abdomen: first segment vellow but brassy black on a triangle upon the posterior border on each side. The second segment is wider than long, brownish black with, in the middle on either side, a triangular yellow spot distinctly separated in the middle. The anterior border of the spot is quite transverse but turned backwards a little at the margin; the posterior border is also straight but oblique. The yellow spots reach the posterior corners and reach the margin in full width. The third segment has a pair of bright, clear yellow, sharply marked, slightly oblique, vittate, posteriorly pointed, yellow spots which run from the base near the middle of the segment and diverge to end close to the posterior margin and almost as close to the lateral margin. The

fourth segment has similar, equally large, parallel-sided spots, also reaching from the base to about the same point posteriorly; these spots are not quite so wide as the preceding pair and also are slightly less divergent but appear to be more divergent because the postero-medial aspect of these spots is rounded and leaves the spots pointed outwardly. The fifth segment has a pair of parallel, widely separated yellow spots which are elongate and oval; they are widest upon the base of the segment and reach nearly to the end of the segment.

Holotype: male, Santiago, Chile, March 30, 1944. Presented

to the author by Senor Stuardo Ortiz.

Mesogramma intermedia n. sp.

This species is intermediate between anthorata Macquart and tibicen Wiedmann. It appears to be quite distinct from each of them. Length 10 mm.

Female. Head: the face is moderately produced. The cheeks and face are vellow and the middle of the face and tubercle broadly dark shining brown. The sides of the face are white pollinose with whitish pile and the yellow extends narrowly up the sides of the front; the pollen on this area is pale yellow. The intervening portion and remainder of the front and the entire vertex are black. The lower portion of the front is somewhat protuberant, polished black, transversely constricted above and with a medial linear line. The upper part of the front is opaque and from a side view dark brown pollinose with lighter pollen down the middle. The vertex is brassy between the ocelli which lie in an equilateral triangle but bright metallic blue immediately behind the ocelli and still further behind brassy. The vertical pile is short, scanty and yellowish but may appear black in some lights. The antennae are yellowish brown on the basal and second segments and narrowly upon the base of the third segment; the remainder of the third segment is black. The arista is reddish brown with the apex blackish. The occiput is densely brownish golden pollinose above becoming grey near the bottom. The occipital pile is shining yellow and considerably flattened in the middle. The middle of the posterior eye margins are rather deeply indented and there are three or four rows of the scalose pile at this point. Thorax: the mesonotum is black. heavily covered with golden brown pollen down the middle and this wide area is divided by a medial, wide, steel blue stripe which itself is divided in some lights by a narrow grey line. The lateral margins of the mesonotum and the entire margin of the scutellum. the notopleura and the humeri are clear, distinct pale yellow, sharply set away from the dark color. The dark mesonotal color immediately adjacent to the yellow borders is dark brown pollinose merging diffusely and gradually into the submedial golden brown pollen. The posterior half of the mesopleura, a large oval spot on the upper border of the sternopleura and the propleura are pale yellow. Squamae and fringe yellow, the halteres yellow with a greyish brown knob. Legs: the anterior and middle femora are yellow with a faint diffuse, subapical brown annulus, their basal pile yellow; the middle femur black pilose apically. Anterior and middle tibiae entirely pale yellow. The first four segments of the anterior tarsi are quite black upon the dorsal surface except the extreme base of the first segment; their pile is reddish brown. The apical segment is yellowish brown and the ventral surface of these tarsi is yellow with golden pile. The middle tarsi are blackish upon the second, third and fourth segments and apex of the basal segment; the remaining segments are yellowish. Hind femur yellow on the basal third becoming diffusely brown and then almost black except the apex which is yellowish brown. These femora are black pilose on the dark areas and yellow pilose basally; hind tibiae dark brown at extreme base and apex and almost black between, their pile black. The dorsal surface of the hind basitarsi is light reddish brown with black pile above and golden pile below except the dorsal apex which is black; the remaining segments are black with black pile above. Wings: quite hyaline, elongate, the first posterior cell rather slender with a distinct dip in the third vein; the entire stigmal area is pale brown and the alulae well developed and wide. Abdomen: quite flattened, the sides of the second, third and fourth segments are emarginate; the first segment is yellow laterally, black transversely in the middle and on the posterior half but the posterior corners and whole lateral margins are yellow; the lateral pile is yellow, the remaining pile black. The second segment is narrowly brown across the base, narrowly yellowish in the anterior corners followed by a more narrow, opaque black band and in the middle of the segment a very slightly arched, complete yellow band which is approximately one-fourth as wide as the segment is long. This yellow band is bordered posteriorly by an opaque black band which in the middle is a little wider but becomes attenuated laterally until it is not quite as wide as the yellow band. The posterior margin of the second segment is occupied by a shining black band of uniform width and purplish reflections; its width is at least one-fifth the length of the segment. Third segment with a posterior shining purplish black band equally as wide as the one on the second segment; immediately in front of this posterior shining band there is an opaque black fascia expanding gradually forward towards the sides of the segment to include the entire lateral margin; the black becomes quite narrow as it reaches the base of the segment. In the middle of the segment the black is produced forward to form an expanding wedge of opaque black which is wide and bluntly triangular on the anterior half of the segment but which does not quite reach the base of the segment. The remainder of the segment is light brownish yellow. The fourth segment is somewhat similar except that the expanding, posterior, opaque fascia only reaches two-thirds of the length of the lateral margin; the anterior third is vellow and this segment has a similar, equally large, medial, blunt, triangular wedge in the middle of the segment which narrowly touches the base of the segment and is bisected by a yellowish brown vitta. This medial yellow brown vitta does not reach the base of the segment. The remainder of this segment is also light brownish yellow and the posterior margin violaceous. Fifth segment with posterior margin shining black, a low black triangle on either side and a medial wedge expanded to become a trifurcate spot anteriorly; the middle prong touches the base. These areas are opaque black and the remainder of the segment is light yellow. Holotype: female, Pucallpa, Peru, Dec. 1947, Jose Schunke.

This species differs from anchorata Macquart in that the posterior black fascia of the third segment extends to the base of the segment laterally; also the medial wedge-like triangles are larger, more blunt upon their lateral extensions and the one upon the fourth segment is not only bisected but extends to the base of the segment. This species differs from tibicen Wiedemann in the fact that the medial triangle of the third segment is wider, more acute laterally and does not reach the base and upon the fourth segment it differs because the black posterior fascia extends widely across

and includes the lateral margin.